

METHOD AND APPARATUS FOR PRODUCING
PSEUDO-CONSTANT BITS PER PICTURE VIDEO
BIT-STREAMS FOR LOW-DELAY COMPRESSION SYSTEM

Abstract of the Disclosure

5 A frequency domain data management technique for
producing pseudo-constant bits per picture compressed video
bit-streams in a low delay digital encoding environment is
presented. This technique forms a hierarchy among the
localized samples of the picture in terms of frequency
10 importance and the picture difficulty after a shot-change is
detected. After a shot change, the data management technique
implements a series of tasks composed of picture difficulty
evaluation, frequency classification, frequency
15 constraining, and zero bytes generation to achieve a pre-
determined average picture bits. Further, the low delay
encoder uses a unique updating mechanism to encode certain
regions of the pictures in intra mode and ensures that the
whole picture is updated after a pre-selected number of
20 pictures. The updating method disseminates compression
artifacts throughout the video stream by changing the
orientation of the intra-coded regions for every picture and
scatters intra-picture compression artifacts by spatially
decimating the aforementioned regions at different rates.